



INVOLVEMENT OF WOMEN FARMERS' GROUPS IN AGRICULTURAL EXTENSION

Nia Kurniasih Suryana*, Zulhafandi, Ella Rizkiani

Faculty of Agriculture, University of Borneo Tarakan

zlynia@gmail.com

Abstract: Women are often subordinated in various aspects of life, including in the realm of agriculture. Women farmer groups can play an important role in learning classes, cooperation, and production units and channelling various agricultural interests. This research aims to describe the involvement of women farmer groups in agricultural extension and formulate strategies to improve the quality of agriculture in Central Tarakan District. Data were analyzed using descriptive analysis and SWOT. The research results show that members of women farmer groups are often involved in planning extension activities, implementation and utilization of results, while involvement in supervision is still lacking. Strategies to increase the involvement of women farmer group members include: (1) providing education and training on modern agricultural techniques and the latest innovations, (2) increasing access to business credit to increase productivity and welfare, (3) providing easy access to agricultural information through information technology and communication, (4) facilitation of non-agricultural skills training such as financial management and entrepreneurship, (5) involvement of women farmer groups in planning and implementation of extension activities, and (6) development of communication networks between groups of women farmers to exchange experiences and best practices in agriculture.

Keywords: *Involvement, Farmers' Group, Agricultural Extension*

Abstrak: Perempuan seringkali ter subordinasi dalam berbagai aspek kehidupan, termasuk dalam bidang pertanian. Kelompok perempuan tani dapat berperan penting dalam kelas pembelajaran, kerjasama, dan unit produksi serta menyalurkan berbagai kepentingan pertanian. Penelitian ini bertujuan untuk mendeskripsikan keterlibatan kelompok wanita tani dalam penyuluhan pertanian dan merumuskan strategi peningkatan kualitas pertanian di Kabupaten Tarakan Tengah. Data dianalisis menggunakan analisis deskriptif dan SWOT. Hasil penelitian menunjukkan bahwa anggota kelompok wanita tani sering dilibatkan dalam perencanaan kegiatan penyuluhan, pelaksanaan dan pemanfaatan hasilnya, sedangkan keterlibatan dalam pengawasan masih kurang. Strategi untuk meningkatkan keterlibatan perempuan anggota kelompok tani antara lain: (1) memberikan pendidikan dan pelatihan mengenai teknik pertanian modern dan inovasi terkini, (2) meningkatkan akses terhadap kredit usaha untuk meningkatkan produktivitas dan kesejahteraan, (3) memberikan kemudahan akses terhadap pertanian. informasi melalui teknologi informasi dan komunikasi, (4) fasilitasi pelatihan keterampilan non-pertanian seperti pengelolaan keuangan dan kewirausahaan, (5) keterlibatan kelompok wanita tani dalam perencanaan dan pelaksanaan kegiatan penyuluhan, dan (6) pengembangan jaringan komunikasi antar kelompok petani perempuan untuk bertukar pengalaman dan praktik terbaik di bidang pertanian.

Keywords: *Pelibatan, Kelompok Petani, Penyuluhan Pertanian*

INTRODUCTION

Agriculture is an important economic sector in many countries, including Indonesia. However, many farmers in Indonesia still face various problems in developing their agricultural businesses, such as low productivity and limited access to agricultural information and technology. Agricultural extension is one way to help farmers increase their productivity and welfare. In agrarian extension, the involvement of farmer groups is considered important to increase program effectiveness and

strengthen farming communities. Farmer groups can help increase farmer participation in extension programs, support the dissemination of agricultural information and technology, and facilitate the development of collective agricultural businesses.

The agricultural extension process is directed towards a group approach that supports agriculture-based agribusiness systems, including food crops, horticulture, animal husbandry, and plantations. The Women Farmers Group serves as a farmer institution that channels various farmers' interests and plays a vital, strategic, and central role as a learning community, a vehicle for cooperation, and a production unit (Anis et al., 2014).

Women farmers in many countries are still often considered less recognized and neglected actors in agricultural development policies. However, women farmers have significant potential to enhance agricultural productivity and improve the welfare of their families and surrounding communities. By participating in agricultural extension programs, women farmers can enhance their knowledge and skills in various aspects of agriculture, such as land and water management, proper use of fertilizers and pesticides, and utilization of modern agricultural technology.

Additionally, women's farming groups provide opportunities for women to exchange information, learn from others' experiences, and receive support from fellow group members. These interactions can boost their self-confidence and motivation to engage more actively in agricultural activities and community development in their area.

Historically, women have often been considered less recognized members of the agricultural world. They frequently lack equal access to agricultural resources such as land, capital, and agricultural education.

However, several studies have shown that involving women farming groups in agricultural extension programs can significantly increase agricultural production, food security, and the economic welfare of families and local communities. Research by Nundu et al. (2021) indicates that farmer group members are very active in utilizing household yards and barns. Other studies demonstrate that the participation of women in farming groups has a positive impact on improving family economies (Alam et al., 2011).

The involvement of women farmer groups is crucial, yet numerous challenges must be addressed, including a lack of understanding regarding the role of farmer groups, limited resources, and coordination issues between farmer groups and agricultural extension workers. Involving farmer groups in agricultural extension proves to be an effective strategy to enhance farmer participation and expedite the transfer of agricultural technology. Within these groups, farmers can exchange experiences, learn from one another, and collaborate to improve the productivity and quality of agricultural products.

The number of *Kelompok Perempuan Tani* (KWT) or Women Farmer Groups in Tarakan Tengah District is 6 groups, with an average of 25 active members per group. There are 2 extension workers in the Central Tarakan District. The involvement of KWT members in agricultural extension aims to achieve extension objectives, such as behavioural change, increased income, and improved welfare. Therefore, research on the involvement of farmer groups in agricultural extension can offer valuable insights for enhancing agricultural extension and development programs in Indonesia. This research aims to describe the participation of women farmer groups

in agricultural extension in Tarakan Tengah District, Tarakan City, and to formulate strategies for involving these groups effectively.

METHOD

This research adopts a qualitative approach, focusing on holistic descriptions to provide detailed explanations of ongoing activities or situations, rather than comparing the effects of specific treatments or explaining people's attitudes or behaviors (Wahab, 2014). Primary data were gathered through in-depth interviews with extension workers and members of women farmer groups, while secondary data were obtained from relevant government agencies. Data collection involved field observations, in-depth interviews, as well as written documentation and audio recordings to ensure data validity. The study population comprised all members of women farmer groups in Tarakan Tengah District, with a sample of 30 individuals selected using quota sampling from six groups of women farmers.

The data analysis employs descriptive methods for the first objective, aiming to provide an objective description of the situation without making generalizations (Sugiyono, 2017). For the second objective, SWOT analysis is applied, distinguishing between Internal Factors Analysis Summary (IFAS) and External Factors Analysis Summary (EFAS), resulting in the identification of four strategies: SO (using strengths to capitalize on opportunities), ST (leveraging strengths to mitigate threats), WO (exploiting opportunities to address weaknesses), and WT (mitigating weaknesses to avoid threats).

RESULTS AND DISCUSSION

Involvement of women farmer groups in agricultural extension in Tarakan Tengah District, Tarakan City

It is crucial to engage members of women farmer groups and educate them about the significance of women's participation at various stages of agricultural extension to achieve more effective and sustainable outcomes (Quisumbing et al., 2014). Extension activities encompass planning, implementation, evaluation, monitoring, and utilization of results (Chambers, R., 1997). Based on the study findings, the following information was gathered:

Table 1.
Involvement of Women Farmer Group Members in Planning Extension Activities.

No	Planning Activities	Engage Often		Occasionally Involved		Not involved	
		Amount	%	Amount	%	Amount	%
1	Attend group meetings/meetings with instructors	21	70	8	27	1	3
2	Participation in identifying the needs and problems faced by members of the Women Farmers group	18	60	6	20	6	20
3	Provide input to extension programs	18	60	6	20	6	20
4	Provide input on the topic of extension material	18	60	6	20	6	20
5	Provide input on the schedule and location for the counseling	18	60	6	20	6	20

Source: Processed Primary Data, 2023

Based on Table 1, it is evident that the majority (60-70%) of respondents indicated their participation in planning extension activities, including attending meetings, identifying needs and issues faced by farmer group members, offering suggestions and feedback, contributing to the topics of extension materials, and organizing schedules and locations for counselling sessions. Farmer group members play a crucial role in the planning of extension activities. Their involvement ensures that the extension efforts are aligned with the actual needs and conditions in the field. Engaging farmer group members in planning extension activities not only enhances program sustainability and success but also respects the local knowledge and community experience. This approach makes extension services more relevant, accepted, and impactful in improving farmers' lives.

Table 2.
Involvement of Women Farmer Group Members in Implementing Extension Activities

No	Implementation Activities	Engage Often		Occasionally Involved		Not involved	
		Amount	%	Amount	%	Amount	%
1	Participate in outreach and training activities	24	80	6	20	0	0
2	Discussion and questions and answers	15	50	12	40	3	10
3	Implementation of agricultural practices	18	60	12	40	0	0
4	Share knowledge with fellow members	6	20	12	40	12	40
5	Develop innovation	0	0	6	20	24	80

Source: Processed Primary Data, 2023

Table 2 shows that women farmer group members are frequently involved in various extension activities such as participating in training sessions, discussions, question-and-answer sessions, and implementing agricultural practices. However, their involvement in knowledge sharing during the diffusion process is sporadic, and they are generally not engaged in innovation development. Several factors contribute to the limited participation of farmer group members in innovation development. These factors may vary depending on the context and conditions of each farmer group. The common reasons include limited education and knowledge, financial constraints, fear of risk and failure, lack of access to information, cultural considerations, lack of government support, and inadequate facilities and infrastructure.

Table 3.
Involvement of Women Farmer Group Members in Supervising Extension Activities

No	Supervision Activities	Engage Often		Occasionally Involved		Not involved	
		Amount	%	Amount	%	Amount	%
1	Assess the material presented	3	10	27	90	0	0
2	Provide feedback to instructors	15	50	12	40	3	10
3	Identify additional needs	6	20	6	20	18	60
4	Monitor resource use	6	20	18	40	6	20

Source: Processed Primary Data, 2023

Based on Table 3 above, it is apparent that women farmer group members frequently provide feedback to extension workers. They occasionally participate in supervising extension activities to assess the

presented materials and monitor resources, but they are not consistently involved in identifying additional needs of women farmer group members.

Involving members of the Women Farmers group in supervising extension activities is a strategic step to enhance the effectiveness and sustainability of agricultural extension programs (Quisumbing et al., 2014). Women farmers play a crucial role in the success of agricultural activities, and their participation in extension supervision can significantly contribute positively (Anwar, 2006: 1).

Table 4.
Involvement of Women Farmer Group Members in Utilizing the Results of Extension Activities

No	Supervision Activities	Engage Often		Occasionally Involved		Not involved	
		Amount	%	Amount	%	Amount	%
1	Increased knowledge and skills	30	100	0	0	0	0
2	Increased revenue	26	87	4	13	0	0
3	Environmental Sustainability	30	100	0	100	0	100

Source: Processed Primary Data, 2023

Based on Table 4 it is evident that members of farmer groups are frequently involved in enhancing knowledge and skills, increasing income, and preserving the environment. Engaging members of the Women Farmers group in utilizing the results of extension activities is a crucial step to ensure that the information and skills acquired from extension services can genuinely maximize benefits for them and the agricultural community as a whole (Listiani, 2012).

Strategy for Involving Women Farmer Groups in Agricultural Extension in Tarakan Tengah District, Tarakan City

The strategy of involving women farmer groups in agricultural extension plays a crucial role in enhancing agricultural productivity, improving the welfare of farmer families, and advancing overall agricultural development. SWOT analysis is employed to formulate this strategy. Engaging Women Farmer groups in agricultural extension is pivotal for boosting agricultural productivity, enhancing the welfare of farming families, and fostering overall agricultural development, as outlined by Rangkuti (1997).

Table 5.
IFAS and EFAS Involvement of Women Farmer Groups in
Agricultural Extension

No	IFAS	No	EFAS
1	Strength (S)	3	Chance (O)
	a. Participation of women farmer group members b. Experiences of Women Farming Group members c. Availability of farming inputs d. There is organization in women farming groups. e. Creativity of members of the Women Farmers group		a. Increased revenue b. Increased Knowledge and Skills c. Increasing Agricultural Production d. Collaboration
2	Weakness (W)	4	Threat (T)
	a. Dependence on conventional practices b. Limited access to information c. Lack of mastery of information technology.		a. Development of information technology b. Lack of support from government and related parties. c. Climate Change and Environmental Factors d. Market price uncertainty.

Source: Processed data, 2023

To obtain a more comprehensive understanding of SWOT analysis, it is essential to present a table of internal and external factors to respondents for determining the rating value and weight of each factor, as

suggested by David (2017). The table below shows the weight and rating values of each internal and external factor based on respondents' responses.

Table 6. Rating Value and Weight on Internal Factors

No	Internal factors	Ratings	Weight	Score
1	Strength			
a	Participation of women farmer group members	3	0.23	0.69
b	Experiences of Women Farming Group members	2	0.15	0.30
c	Availability of farming inputs	3	0.23	0.69
d	There is organization in women farming groups.	3	0.23	0.69
e	Creativity of members of the Women Farmers group	2	0.15	0.30
		13	0.99	2.67
2	Weakness			
a	Dependence on conventional practices	2	0.29	0.58
b	Limited access to information	3	0.42	1.26
c	Lack of mastery of information technology	2	0.29	0.58
		7	1	2.42

Source: Processed Primary Data, 2023

Based on the internal factor analysis, the Women Farmers group possesses several significant strengths. High member participation (score 0.69), availability of adequate farming inputs (score 0.69), and effective organizational structure (score 0.69) are key strengths that support the group's activities. Additionally, members' experience (score of 0.30) and creativity (score 0.30) contribute positively, albeit to a lesser extent. Overall, the total strength score is 2.67, indicating a robust internal foundation for the group.

However, there are several notable weaknesses to consider. Dependence on conventional practices (score 0.58), limited access to

information (score 1.26), and lack of proficiency in information technology (score 0.58) are factors that hinder the group's progress. Among these weaknesses, limited access to information stands out as the most significant and requires immediate attention. The total weakness score is 2.42, slightly lower than the strength score.

In conclusion, while the Women Farmers group possesses more internal strengths than weaknesses, there are specific areas that demand attention, particularly in terms of improving access to information and enhancing proficiency in information technology. Addressing these weaknesses can significantly enhance the effectiveness and efficiency of the group's activities, thereby reinforcing its position in the agricultural sector.

Table 7. Rating Value and Weight on External Factors

No	External Factors	Ratings	Weight	Score
1	Opportunity			
a	Increased revenue	3	0.25	0.75
b	Increased Knowledge and Skills	3	0.25	0.75
c	Increasing Agricultural Production	3	0.25	0.75
d	Collaboration	3	0.25	0.75
		12	1	2.25
2	Threat			
a	Development of information technology	2	0.22	0.44
b	Lack of support from government and related parties.	3	0.34	1.02
c	Climate Change and Environmental Factors	2	0.22	0.44
d	Market price uncertainty	2	0.22	0.44
		9	1	2.34

Source: Processed Primary Data, 2023

The ALI value is obtained by subtracting the strength value from the weakness value, while the ALE value is obtained by subtracting the opportunity value from the threat value. With an ALI value of 0.25 and an ALE value of -0.09, it can be concluded that strengths outweigh

weaknesses, whereas threats outweigh opportunities. Therefore, an appropriate strategy is needed to involve members of women farmer groups in extension activities.

Based on the results of the mapping, it is observed that the strategy formulation position for involving members of the Women Farmer group in extension activities is in Strategy IV, which is the Competitive strategy. This indicates that women farmer groups are in a challenging position, confronting several internal threats and weaknesses in enhancing the involvement of their members in extension activities.

Tabel. SWOT matrix analysis

<div> <div>IFAS</div> <div>EFAS</div> </div>	Strength (S): <ul style="list-style-type: none"> • Participation of women farmer group members • Experiences of Women Farming Group members • Availability of farming inputs • There is organization in women's farmer groups. • Creativity of members of the Women Farmers group 	Weaknesses (W): <ul style="list-style-type: none"> • Dependence on conventional practices • Limited access to information • Lack of mastery of information technology
	SO Strategy <ol style="list-style-type: none"> 1. Providing education and training regarding modern agricultural techniques and the latest innovations 	WO Strategy <ol style="list-style-type: none"> 1. Building an agricultural information center that is easily accessible using information

<ul style="list-style-type: none"> • Increasing Agricultural Production • Collaboration 	<p>in the agricultural sector to groups of women farmers</p> <ol style="list-style-type: none"> 2. Increasing access to business credit to help increase the productivity and welfare of women farming groups. 	<p>and communication technology that suits the needs and capabilities of women farming groups.</p> <ol style="list-style-type: none"> 2. Using extension methods that suit farmer characteristics to increase innovation adoption
<p>Threat (T):</p> <ul style="list-style-type: none"> • Development of information technology • Lack of support from government and related parties. • Climate Change and Environmental Factors • Market price uncertainty 	<p>ST Strategy</p> <ol style="list-style-type: none"> 1. Providing easy access to agricultural information through information and communication technology, such as training on using smartphones, agricultural applications, and social media training 2. Encourage the formation of networks and alliances between groups of women farmers to facilitate the exchange of knowledge and experience. 	<p>WT Strategy</p> <ol style="list-style-type: none"> 1. Building a communication network between women farming groups in various regions to exchange experiences, information and best practices in agriculture. 2. Hold regular meetings, seminars and workshops involving various stakeholders to facilitate the exchange of knowledge and experience.

	<ol style="list-style-type: none">3. Facilitate non-agricultural skills training, such as financial management, entrepreneurship, and leadership skills, to help increase the success of agricultural businesses4. Provide training to increase understanding of climate change and its impact on agriculture.5. Involving women farmer groups in planning and implementing agricultural extension activities	
--	---	--

Source: Primary Data Processing, 2022

Based on the analysis of IFAS (Internal Factor Analysis Summary) and EFAS (External Factor Analysis Summary), women farmer groups exhibit various internal strengths and weaknesses, along with external opportunities and threats that can serve as a foundation for strategy development. Key strengths of this group include active member participation, farming experience, access to farming inputs, effective organization, and member creativity. However, they also contend with weaknesses such as reliance on traditional practices, limited access to information, and inadequate proficiency in information technology.

To capitalize on opportunities such as increased income, knowledge, skills in agriculture, and collaborative opportunities, groups can

leverage their internal strengths. Strategies that can be implemented include providing education and training on modern agricultural techniques and innovations, as well as enhancing access to business credit to bolster group productivity and welfare.

To address weaknesses and capitalize on opportunities, groups can establish easily accessible agricultural information centers utilizing appropriate information and communication technologies. They can also employ effective extension methods to enhance the adoption of innovations. Confronting threats such as advancements in information technology, inadequate government support, climate change, and market price uncertainty, groups can leverage their strengths by facilitating convenient access to agricultural information via technology, fostering networks and alliances among groups for knowledge and experience sharing, and providing training in non-agricultural skills.

Other strategies to mitigate weaknesses in the face of threats include establishing communication networks among groups across different regions to exchange agricultural experiences, information, and best practices. Additionally, organizing regular meetings, seminars, and workshops involving various stakeholders can contribute significantly. By implementing these strategies, women farmer groups can enhance the effectiveness, efficiency, and success of their agricultural endeavors.

Table 9. Determining Key Factors for Involving Women Farmer Group Members in Counseling

No	STRATEGY	Relationship With	Amount Score
----	----------	-------------------	--------------

		Rationality	Orientation success	
SO STRATEGY				
1.	Providing education and training regarding modern agricultural techniques and the latest innovations in the agricultural sector to groups of women farmers	4	4	8
2.	Increasing access to business credit to help increase the productivity and welfare of women farming groups.	4	4	8
STRATEGY ST				
1.	Providing easy access to agricultural information through information and communication technology, such as training on using smartphones, agricultural applications, and social media training	4	4	8
2.	Encourage the formation of networks and alliances between groups of women farmers to facilitate the exchange of knowledge and experience.	3	2	5
3.	Facilitate non-agricultural skills training, such as financial management, entrepreneurship, and leadership skills, to help increase the success of agricultural businesses	4	4	8
4.	Provide training to increase understanding of climate change and its impact on agriculture	3	3	6
5.	Involving women farmer groups in planning and implementing agricultural extension activities	4	4	8
WO STRATEGY				
1.	Building an agricultural information center that is easily accessible using information and communication technology that suits the needs and capabilities of women farming groups	3	2	5
2	Hold regular meetings, seminars and workshops involving various	3	2	5

	stakeholders to facilitate the exchange of knowledge and experience.			
WT STRATEGY				
1.	Building a communication network between women farming groups in various regions to exchange experiences, information and best practices in agriculture.	4	4	8
2.	Hold regular meetings, seminars and workshops involving various stakeholders to facilitate the exchange of knowledge and experience.	4	3	7

Source: Processed Primary Data, 2023

Based on the score results in Table 9, six strategies have been formulated to enhance the involvement of women farmer group members in extension activities. First, provide education and training on modern agricultural techniques and the latest innovations in the agricultural sector for groups of women farmers. Second, increase access to business credit to enhance productivity and welfare within women farming groups. Third, ensure easy access to agricultural information through information and communication technology, including training in smartphone usage, agricultural applications, and social media. Fourth, facilitate non-agricultural skills training such as financial management, entrepreneurship, and leadership to boost the success of agricultural businesses.

Fifth, involve women farmer groups in the planning and implementation of agricultural extension activities to ensure active participation and a sense of ownership. Sixth, establish communication networks among women farming groups across various regions to facilitate the exchange of experiences, information, and best practices in agriculture. These strategies are expected to elevate productivity, welfare, and success in the agricultural businesses of women farmer groups, while also

strengthening relationships and promoting knowledge exchange among them.

This aligns with the assertion of Mwangi, E., & Wollenberg, E. (2004) that crucial steps include ensuring women's access to resources such as land and water, enhancing women's capacities and participation through training and education in sustainable agricultural practices and technology, establishing communication networks for information sharing and collaborative support, and advocating for inclusive policies to ensure equitable rights for women.

CONCLUSION

Women Farmer Group members are actively involved in planning, implementing, and utilizing extension activity results, with occasional participation in supervision. To enhance their involvement, several strategies have been formulated, including providing education and training on modern agricultural techniques and the latest innovations, increasing access to business credit, ensuring easy access to agricultural information through information and communication technology, facilitating non-agricultural skills training such as financial management and entrepreneurship, involving women farmer groups in planning and implementing extension activities, and establishing communication networks among women farmer groups across different regions.

Suggestions to enhance the success of agricultural extension include: involving farmer group members in the planning of extension programs to foster ownership and interest in extension activities, providing adequate support for facilities and infrastructure, and employing suitable methods, media, and materials to boost participation among Women Farmer Group members. By implementing these strategies, it is expected

that the productivity and welfare of women farmer groups will improve, while strengthening networks and promoting information exchange among them.

BIBLIOGRAPHY

Agnes R. Quisumbing et al., (2014). *Gender in Agriculture: Closing the Knowledge Gap*. Dordrecht: Springer.

Ahmad. (2020). *Strategic Management*. Makassar: Nas Media Pustaka.

Alam, KS, Hakim, L., & Razak, AR (2019). The Influence of Women Farming Group Participation on Improving the Family Economy in Appanang Village, Soppeng Regency. *Collaboration: Journal of Public Administration* , 5 (3), 371-387.

Andriani, DP (2019). Sampling Method. *Debrina. lectures. ub. air conditioning. en* , 1-36.

Anis, SM, Effendy, L., & Musmohon, EJ (2014). Participation of Farming Group Members in Preparing Definitive Group Plans/Definitive Plans for Group Needs. *Journal of Agricultural Extension* , 9 (1), 37-42.

Anwar, 2006. *Women's Empowerment Management*. Bandung: Alfabeta Publishers.

Anwarudin O. 2017. Determining Factors of Farmer Participation in the Rice Special Effort Program (UPSUS) in Manokwari Regency, West Papua. *Journal of Agricultural Extension*. 12(1): 67-79

Chambers, R. (1997). *Rural livelihoods and diversity in developing countries*. Oxford: Oxford University Press.

David, FR & David, FR, 2017. *Strategic Management: A Competitive Advantage Approach*. SL: Pearson.

Hadi, S., Prayuginingsih, H., & Akhmadi, AN (2019). The role of farmer groups and farmers' perceptions of the implementation of organic rice cultivation in Jember Regency. *Journal of Extension*, 15 (2), 154-168.

- Handayani, WA, Tedjaningsih, T., & Rofatin, B. (2019). The role of farmer groups in increasing rice farming productivity. *Agriстан Journal*, 1 (2).
- Koampa, MV, Benu, OL, Sendow, MM, & Moniaga, VR (2015). Participation of farmer groups in agricultural extension activities in Kanonang Lima village, West Kawangkoan sub-district, Minahasa. *Agri-Socioeconomics*, 11 (3A), 19-32.
- Listiani. 2012. Gender and Rural Women's Communities. Medan (ID): Bitra Indonesia.
- Maryani A, Haryanto Y and Anwarudin O. 2017. Strategy of agricultural extension to improve participation of the farmers in special efforts in increasing rice production. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*. 36(4): 163-174
- Mikkelsen, Britha. 2011. "Participatory Research Methods and Empowerment Efforts". Jakarta: Indonesian Torch Library Foundation
- Mwangi, E., & Wollenberg, E. (Eds.). (2004). Decentralization, forests and rural communities: Policy outcomes in South and Southeast Asia. CIFOR.
- Nundu, DN, Suwasono, S., & Kholil, AY (2021). *Participation of Members of the "Seruni" Farming Women's Group in the Utilization of Yard Land in Sengguruh Village, Kepenjen District, Malang Regency* (Doctoral dissertation, Faculty of Agriculture and Tribhuwana Tungga Dewi University, Malang).
- Nuraini, C., Darwanto, DH, Masyhuri, and Jamhari, 2016. Institutional Model in Organic Rice Agribusiness in Tasikmalaya Regency. *Journal*
- Nuryanti, S., & Swastika, DKS (2011). The role of farmer groups in the application of agricultural technology.
- Rangkuti, F. 1997. SWOT Analysis. Case Dissection Techniques. Oriented to Strategic Planning Concepts for Facing the 21st Century. Jakarta (Id): Gramedia

- Slamet, M. 2003. Shaping Developmental Human Behavior Patterns. IPB. Press. Bogor.
- Sugiyono. 2017. *Quantitative Qualitative Research Methods and R&D* . Alphabeta CV. Bandung
- Sukono 2013. Growth of Self-Help KWT Women Farmer Groups in Trimurjo District by BP4K Lampung Regency. Taken from <http://epetani.pertanian.go.id/berita/>
- Suryana, Nia K (2017). *Agricultural Extension and Communication in Theory* . Faculty of Economics Press. Tarakan.
- Wahab, Solichin. (2014). Policy Analysis from Formulation to Implementation of State Policy. Jakarta: Bumi Literacy.